



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

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February 1, 2018

Mark Cohen, P.E.
MassDevelopment
33 Andrews Parkway
Devens, MA 01434

City/Town: Devens
Re: Public Notice, Draft Permit Modification
Program Identifier: GW #657-3 M-1
Facility Name: Devens POTW
Authorization Type: Groundwater Discharge

Dear Mr. Cohen:

This is in response to your request dated January 18, 2018 submitted by Suez via e-mail on your behalf seeking a modification to your groundwater discharge permit (GW #657-3) related to effluent limits of settleable solids at the wastewater treatment facility (WWTF) serving MassDevelopment. Your discharge permit was recently renewed on September 27, 2016, which included settleable solids; however, it did not include any monitoring of that parameter.

The Central Regional Office of the Massachusetts Department of Environmental Protection ("MassDEP") has reviewed your request and proposes the following modifications: removal of the settleable solids parameter in the effluent and clarification of total phosphorus and orthophosphate sampling. Other modifications include boilerplate language related to eDEP filing that reflects current MassDEP policies and procedures. Please review this draft permit modification.

The proposed draft permit can only be considered in draft form because of provisions in the Law regulating public notice of the proposed issuance of the permit and opportunity for public comments and public hearing. The draft permit consists of *Section I. Special Conditions* (Pages 1-10) that are specific to your discharge permit. *Section II. General Permit Conditions* (Pages 11-17) are not included here due to the fact that they apply to all groundwater permits per the regulations at 314 CMR 5.16 and cannot be modified. Following receipt of comments on the public notice, and public hearing, if held, the MassDEP will issue its final determination to issue or deny the permit.

Enclosed herewith is a copy of the public notice for your groundwater discharge permit modification. The enclosed public notice should be published to start the thirty (30) day public comment period. If you have any comments or concerns regarding the enclosed draft permit, please submit them in writing to the

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

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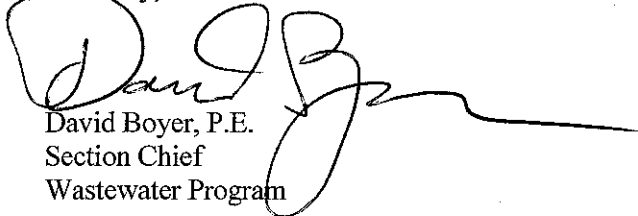
Department within fourteen (14) days of receipt of this letter. If there are no comments or concerns, and you are satisfied with the permit please proceed with the publishing of public notice as described herein.

In accordance with 314 CMR 2.06(4) and M.G.L. c.30A, the applicant or permittee, as applicable, shall publish public notice of the permit proceedings in *The Environmental Monitor*, a publication of the Massachusetts Executive Office of Energy and Environmental Affairs. For instructions on filing this notice with MEPA please refer to MEPA's website at <http://www.env.state.ma.us/mepa/submittingnotices.htm>

The applicant or permittee shall submit to the Department a copy of the public notice as published in the *Environmental Monitor*, within seven days after the date of publication or at such other time as the Department requires. This information should be sent to the attention of at the above letterhead address. The mandatory thirty day public comment period will commence with the date of publication of the public notice.

If you have any questions or comments regarding this matter, please feel free to contact me at 508-767-2823 or david.boyer@state.ma.us.

Sincerely,



David Boyer, P.E.
Section Chief
Wastewater Program

db/hs: GW 657-3 M-1 pn (Devens)-352

cc: Nashoba Assoc. Boards of Health – James Garreffi
30 Central Ave.
Ayer, MA 01432

Shawn Meunier, Devens Project Manager
Suez
85 Walker Road
Shirley, MA 01464

PUBLIC NOTICE
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER RESOURCES/WASTEWATER MANAGEMENT PROGRAM
8 NEW BOND STREET
WORCESTER, MA 01606
TEL#: (508) 792-7650

Notice is hereby given that the following application for an Individual Groundwater Discharge Permit is being processed and the following actions being proposed thereon pursuant to Section 43 of Chapter 21 of the General Laws, and 314 CMR 5.00 and 2.06:

CITY/TOWN: Devens - MassDevelopment

PROJECT NAME: Devens Commerce WWTF Groundwater Discharge Permit Modification

APPLICANT: Massachusetts Development Finance Agency (MassDevelopment)

FACILITY LOCATION: 85 Walker Road, Shirley, MA 01464

TYPE OF DISCHARGE: Groundwater discharge of sanitary wastewater

QUANTITY OF DISCHARGE: Monthly average - 4,650,000 gpd
Weekly average - 7,000,000 gpd
Daily Maximum - 8,100,000 gpd

PERMIT NO: 657-3 M-1

PROPOSED ACTION: Tentative determination to issue individual groundwater discharge permit

A copy of the application, draft permit, and statement of basis or fact sheet relative to the draft permit may be obtained from the MassDEP's Wastewater Management Program at the above address and telephone number or online at:

<http://www.mass.gov/eea/agencies/massdep/news/comment/>

Comments on the proposed action or requests for a public hearing thereon pursuant to 314 CMR 2.07 must be filed with MassDEP at the above address within thirty (30) days of this notice. For information on the process for formally intervening in adjudicatory proceedings, please refer to 310 CMR 1.00: Adjudicatory Proceedings, Section (7) Intervention and Participation.

<http://www.mass.gov/eea/agencies/massdep/water/regulations/310-cmr-1-00-adjudicatory-proceedings.html>

David Boyer, P.E.
Bureau of Water Resources



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INDIVIDUAL GROUNDWATER DISCHARGE PERMIT

Name and Address of Applicant: Massachusetts Development Finance
Agency (MassDevelopment)
33 Andrews Parkway
Devens, MA 01434

Date of Application: January 28, 2016

Application/Permit No. 657-3 M-1

Date of Issuance: September 27, 2016

Date of Expiration: September 27, 2021

Effective Date: September 27, 2016

Date of Modification: DRAFT

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AUTHORITY FOR ISSUANCE

Pursuant to authority granted by Chapter 21, Sections 26-53 of the Massachusetts General Laws, as amended, 314 CMR 2.00, and 314 CMR 5.00, the Massachusetts Department of Environmental Protection (the Department or MassDEP) hereby issues the following permit to: Massachusetts Development Finance Agency (hereinafter called "the Permittee") authorizing discharges to the ground from the 4.65 million gallons per day (MGD) onsite wastewater treatment facility that serves the town of Devens such authorization being expressly conditional on compliance by the Permittee with all terms and conditions of the permit hereinafter set forth.

David Boyer, P.E.
Bureau of Water Resources

Date

I. SPECIAL CONDITIONS

A. **Effluent Limits**

- 1) The Permittee is authorized to discharge into the ground from the wastewater treatment facilities, for which this permit is issued a treated effluent, whose characteristics shall not exceed the following values:

| <u>Effluent Characteristics</u> | <u>Discharge Limitations</u> |
|--|------------------------------|
| Flow: Monthly Average | 4,650,000 gpd |
| Weekly Average | 7,000,000 gpd |
| Daily Maximum | 8,100,000 gpd |
| Biochemical Oxygen Demand (BOD ₅) | 30 mg/l |
| Total Suspended Solids (TSS) | 30 mg/l |
| Nitrate Nitrogen | 10 mg/l |
| Total Nitrogen (NO ₂ + NO ₃ + TKN) | 10 mg/l |
| Oil and Grease | 15 mg/L |
| Total Phosphorus (monthly average) | 2.0/1.0 mg/L |
| Fecal Coliform | 200 col/100 mL |

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- a) The average monthly discharge limit for Total phosphorus shall be lowered to 1.0 mg/l if the average monthly discharge exceeds 3.0 MGD, and either of the following conditions occur:
- The total phosphorus concentration in any downgradient groundwater monitoring well is reported to exceed 0.5 mg/l for either three consecutive monthly sampling or four out of six consecutive sampling periods, or
 - There is evidence of emerging groundwater.
- 2) The pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time or not more than 0.2 standard units outside the naturally occurring range.
- 3) The discharge of the effluent shall not result in any demonstrable adverse effect on the groundwater or violate any water quality standards that have been promulgated.
- 4) The monthly average concentration of BOD and TSS in the discharge shall not exceed 15 percent of the monthly average concentrations of BOD and TSS in the influent into the Permittee's wastewater treatment facility.

- 5) When the average annual flow exceeds 80 percent of the permitted flow limitations, the Permittee shall submit a report to the Department describing what steps the Permittee will take in order to remain in compliance with the permit limitations and conditions, inclusive of the flow limitations established in this permit.

B. Monitoring and Reporting

- 1) The Permittee shall monitor and record the quality of the **influent** and the quality and quantity of the **effluent** prior to discharge to the leaching facilities according to the following schedule and other provisions:

INFLUENT:

| <u>Parameter</u> | <u>Minimum Frequency of Analysis</u> | <u>Sample Type</u> |
|--|--------------------------------------|--------------------|
| Flow | Continuous Recording | Max-Min-Avg |
| BOD ₅ | Weekly | 24 Hr. Composite |
| TSS | Weekly | 24 Hr. Composite |
| Total Solids | Weekly | 24 Hr. Composite |
| Ammonia Nitrogen | Monthly | 24 Hr. Composite |
| Volatile Organic Compounds (US EPA Method #624) | Annually | Grab |

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EFFLUENT:

| <u>Parameter</u> | <u>Minimum Frequency of Analysis</u> | <u>Sample Type</u> |
|--|--------------------------------------|--------------------|
| Flow | Continuous Recording | Max-Min-Avg |
| pH | Daily | Grab |
| Ultraviolet Intensity | Daily | Reading |
| BOD ₅ | Weekly | 24 Hr. Composite |
| Total Solids | Weekly | 24 Hr. Composite |
| TSS | Weekly | 24 Hr. Composite |
| Nitrate Nitrogen | Monthly | 24 Hr. Composite |
| Total Nitrogen | Monthly | 24 Hr. Composite |
| Oil & Grease | Monthly | Grab |
| Total Phosphorus | Weekly | 24 Hr. Composite |
| Orthophosphate | Monthly | 24 Hr. Composite |
| Fecal Coliform | Monthly | Grab |
| Volatile Organic Compounds (US EPA Method #624) | Annually | Grab |

- a) Monthly orthophosphate sample shall be taken simultaneously with weekly total phosphorus sample.
- 2) The Permittee shall sample one upgradient well (WWTMW-06), three downgradient monitoring wells (WWTMW-04, WWTMW-02A, WWTMW-01A), one cross-gradient monitoring well (WWTMW-07), and two reference wells (WC-1A, and WC-2) as shown on the site plan titled "Devens, Massachusetts, Devens WWTF Monitoring Well and River Sampling sites – July 2016".

The Permittee shall monitor, record and report the quality of water in the monitoring wells according to the following schedule and other provisions:

| <u>Parameter</u> | <u>Minimum Frequency of Analysis</u> |
|--|--|
| pH | Monthly |
| Static Water Level | Monthly |
| Specific Conductance | Monthly |
| Nitrate Nitrogen | Quarterly |
| Total Nitrogen | Quarterly |
| Total Phosphorus | Monthly |
| Orthophosphate | Quarterly |
| Volatile Organic Compounds (US EPA method #624) | 2 x Annually |

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- a) Static Water Level shall be expressed as an elevation and shall be referenced to the surveyed datum established for the site. It shall be calculated by subtracting the depth to the water table from the surveyed elevation of the top of the monitoring well's PVC well casing/riser.
- b) Static Water Level shall be recorded and reported to the nearest hundredth of a foot.
- 3) The Permittee shall continue to monitor, record and report the quality of the water at two surface water locations in the Nashua River: one upstream of the groundwater discharge impact area and one downstream of the groundwater discharge impact area from the WWTF. Locations are shown on the site plan titled "Devens, Massachusetts, Devens WWTF Monitoring Well and River Sampling sites – July 2016", according to the following schedule and other provisions:

| <u>Parameter</u> | <u>Minimum Frequency of Analysis</u> |
|------------------|--|
| Nitrate Nitrogen | Monthly (Jul-Sept), Quarterly (Oct-June) |
| Total Nitrogen | Monthly (Jul-Sept), Quarterly (Oct-June) |
| Total Phosphorus | Monthly (Jul-Sept), Quarterly (Oct-June) |
| Orthophosphate | Monthly (Jul-Sept), Quarterly (Oct-June) |
| Fecal Coliform | Monthly (Jul-Sept), Quarterly (Oct-June) |

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- 4) The Permittee shall install proposed Piezometer (PZ-101) before the monthly average discharge reaches 3.0 MGD. The Permittee shall monitor, record, and report static groundwater levels in two (2) existing Piezometers (PZ-5 and PZ-6) and future Piezometer (PZ-101) upon installation, according to the following schedule and other provisions:

| <u>Parameter</u> | <u>Minimum Frequency of Analysis</u> |
|--------------------|--|
| Static Water Level | Quarterly (daily flow up to 3.0 MGD) |
| Static Water Level | Monthly (daily flow exceeding 3.0 MGD) |

The Permittee shall identify the RIB cells loaded on the day before the reading is taken. The static water level shall be recorded and reported to the nearest hundredth of a foot.

When the observed static water level is within one foot below grade, the Permittee shall conduct visual inspection around the perimeter slopes of the RIB for signs of breakout. The Permittee shall notify the Department of any breakout event in accordance with Special Conditions I.A.3, and record the event in the monthly report. The Department may consider further adjustments to the monitoring schedule upon receipt of written requests from the Permittee.

- 5) Any grab sample or composite sample required to be taken less frequently than daily shall be taken during the period of Monday through Friday inclusive. All composite samples shall be taken over the operating day.
- 6) In the event of a breakout or emergent groundwater condition, the Permittee shall notify the Department within 24 hours and, in accordance with Special condition I.A.3, comply with any further actions that the Department deems necessary to protect water quality.

- 7) The Permittee shall submit all monitoring reports within 30 days of the last day of the reporting month. Reports shall be on an acceptable form, properly filled and signed and shall be sent to:

- i. Board of Health: Nashoba Associated Boards of Health, 30 Central Avenue, Ayer, MA 01432
- ii. Devens Enterprise Commission, 33 Andrews Parkway, Devens, MA 01434.

- a) Submission of monitoring reports in electronic format is available through eDEP and serves as data submission to both the Regional and Boston offices. All discharge monitoring reports must be submitted through eDEP. To register for electronic submission go to:

<http://www.mass.gov/eea/agencies/massdep/service/online/edep-online-filing.html>

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C. Supplemental Conditions

- 1) The Permittee shall notify the department in writing at least 90 days prior to its proposed connection of any industrial, commercial or manufacturing facilities discharging to the Devens Wastewater treatment Facility (WWTF). The Permittee's written notification to the Department shall also include detailed data on the waste stream composition of each of the facilities' proposed discharge. Any such connection shall also comply with the Permittee's Industrial Pretreatment Program ("IPP") approved by the Department. The Department may modify the permit, as necessary, to change and/or add permit conditions to address any new wastewater connections.
- 2) The Department will notify the Permittee in writing if the Department determines that additional treatment and/or modifications to the existing treatment units at the Devens WWTF are necessary. Within 60 days of its receipt of the Department's notice or as otherwise determined in writing by the Department, the Permittee shall submit a written response for the Department's approval that addresses the requirements of the Department's determination, including engineering plans of the proposed treatment systems and/or modifications to the existing treatment units at the Devens WWTF. The Permittee shall implement any additional treatment system(s) and/or modifications of existing treatment units at the Devens WWTF, as approved by the Department, within 180 days from the date of the Department's approval of such systems and/or treatment unit modifications or as otherwise determined in writing by the Department.
- 3) If the concentration of total phosphorus in any downgradient groundwater monitoring well is reported to exceed 0.5 mg/l, the Permittee shall arrange to resample that well within ten days of receipt of this data and report the results to the Department. If the total phosphorus concentration is found to remain above 0.5 mg/l in the subsequent quarterly monitoring of that well, the Department may require the Permittee to either increase the testing frequency of that monitoring well or, unless increased concentration are reasonably demonstrated by the Permittee to the satisfaction of the

Department not to be the results of this discharge, to meet more stringent effluent limits at the Devens WWTF in accordance with a plan and schedule approved by the Department pursuant to Supplemental Condition C.2 above.

- 4) The discharge effluent should be loaded over multiple sand bed cells with measures to allow sufficient flexibility to disperse discharge over any combination of RIB's. Should emergent discharge become a concern, the Permittee shall take preventive actions required by the Department, which may include expanded distribution of the discharge over additional RIB cells, and re-grading/filling areas of potential concern.
- 5) If the Department determines, through the review of operations data from the Devens WWTF, that the sequencing biological reactor units (SBR) at the WWTF need to be covered or enclosed, the Department will notify the Permittee in writing of its determinations. Within sixty (60) days of its receipt of the Department's notice or as otherwise determined in writing by the Department, the Permittee shall submit a written response for the Department's approval that addresses the requirements of the Department's determination, including proposed engineering plans of the proposed covers or enclosure of the SBRs. The Permittee shall install the SBR covers or enclosure within ninety (90) days from the date of the Department's approval of such engineering plans or otherwise determined in writing by the Department.
- 6) The Permittee shall notify the Department at least thirty (30) days in advance of the proposed transfer of ownership of the facility for which this permit is written. Said notification shall include a written agreement between the existing and new Permittees containing a specific date for transfer of permit, responsibility, coverage and liability between them.
- 7) A staffing plan for the facility shall be submitted to the Department once every two years and whenever there are staffing changes. The staffing plan shall include the following components:
 - a) The operator(s)'s name(s), operator grade(s) and operator license number(s);
 - b) The number of operational days per week;
 - c) The number of operational shifts per week;
 - d) The number of shifts per day;
 - e) The required personnel per shift;
 - f) Saturday, Sunday and holiday staff coverage;
 - g) Emergency operating personnel
- 8) The Permittee is responsible for the operation and maintenance of all sewers, pump stations, and treatment units for the permitted facility, which shall be operated and maintained under the direction of a properly certified wastewater operator.

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- 9) Operation and maintenance of the facility must be in accordance with 314 CMR 12.00, "Operation and Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Discharges", and, 257 CMR 2.00, "Rules and Regulations for Certification of Operators of Wastewater Treatment Facilities".
- a) The facility has been rated (in accordance with 257 CMR 2.00), to be a Grade 6C facility. Therefore, the Permittee shall provide for oversight by a Massachusetts Certified Wastewater Treatment plant operator (Chief Operator) Grade 6C or higher. The Permittee will also provide for a backup operator who shall possess at least a valid Grade 5 license.
- b) The date and time of the operator's inspection along with the operator's name and certification shall be recorded in the log book on location at the treatment facility. All daily inspection logs consistent with the O&M Manual requirements shall be kept at the facility for a period of three (3) years.
- c) Records of operation of wastewater treatment facilities or disposal systems required by the Department shall be submitted on forms supplied by the Department or on other forms approved by the Department for such use. Monthly reports shall be certified by the wastewater treatment plant operator in charge and shall be included in the discharge monitoring reports submitted each month.
- 10) If the operation and maintenance of the facility is contracted to a private concern, the Permittee shall submit a copy of the contract, consistent with what is required by the approved Operation & Maintenance manual and signed only by the contractor, to the appropriate MassDEP Regional Office within thirty (30) days of permit issuance. Along with the contract, a detailed listing of all contract operation obligations of the proposed contractor at other facilities shall also be submitted.
- 11) Any additional connections to the sewer system, beyond the existing sewer connections shall be approved by MassDEP and the local Board of Health prior to the connection.
- 12) All tests or analytical determinations to determine compliance with permit standards and requirements shall be done using tests and procedures found in the most recent version of *Standard Methods for the Examination of Water and Wastewater* and shall be performed by a Massachusetts Certified laboratory.
- 13) The Permittee shall notify the appropriate MassDEP Regional Office, in writing, within thirty (30) days of the following events:
- a) Any interruption of the treatment system operation, other than routine maintenance.
- b) Final shutdown of the treatment system.

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- 14) The Permittee shall contract to have any and all solids and sludge generated by the treatment system for which this permit is issued removed off site by a properly licensed waste hauler for disposal at an EPA/MassDEP approved facility. The name and license number of the hauler along with the quantity of wastes removed and the date(s) of removal shall be reported by the Permittee in writing to the appropriate MassDEP Regional Office.
- 15) In the event that effluent limits are not met, or the discharge is determined to impair groundwater quality in accordance with 314 CMR 5.16(1), the Permittee may be obligated to modify, supplement or replace the permitted treatment process so as to ensure that the discharge does not impair the ability of the groundwater to act as an actual or potential source of potable water.
- 16) Pursuant to M.G.L. Chapter 21A, section 18(a), and 310 CMR 4.03, holders of this Permit may be subject to annual compliance assurance fees as assessed each year on July 1st and invoiced by MassDEP. Failure of the Permit holder to pay applicable annual compliance assurance fees shall result in the automatic suspension of the permit by operation of law under the statute. If fee non-payment continues for sixty days or more, MassDEP has the statutory option of revoking the Permit, denying any other pending permit applications filed by the Permit holder or taking other enforcement action. Permit holders are required to notify MassDEP in writing if they wish to relinquish or transfer a permit. Failure to do so will result in the continued assessment of fees.

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E. Appeal Rights

During the thirty (30) day period following issuance of this permit, a Notice of Claim for an Adjudicatory Appeal may be sent by any person aggrieved (the "Petitioner") by the issuance to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
One Winter Street/2nd Floor
Boston, MA 02108

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310 CMR 1.01(6)(b) requires the Notice of Claim to: include sufficient facts to demonstrate aggrieved person status; state the facts which are grounds for the appeal specifically, clearly and concisely; and, state relief sought. The permit shall become or remain effective at the end of the 30 day appeal period unless the person filing the Notice of Claim requests, and is granted, a stay of its terms and conditions. If a permit is modified under 314 CMR 2.10, only the modified terms and conditions may be subject to an Adjudicatory Appeal. All other aspects of the existing permit shall remain in effect during any such Adjudicatory Appeal.

Per 310 CMR 4.06, the hearing request to the Commonwealth will be dismissed if the filing fee is not paid. Unless the Petitioner is exempt or granted a waiver, a valid check payable to the Commonwealth to Massachusetts in the amount of \$100.00 must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The filing fee is not required if the Petitioner is a city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority effective January 14, 1994, or any municipal housing authority; or, per MGL 161A s. 24, the Massachusetts Bay Transportation Authority. The Department may waive the adjudicatory hearing filing fee for a Petitioner who shows that paying the fee will create an undue financial hardship. A Petitioner seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.